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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,541	10/24/2003	Donald R. Moody	018300-001521	2310
24239 7590 12/13/2007 MOORE & VAN ALLEN PLLC P.O. BOX 13706 Research Triangle Park, NC 27709			EXAMINER LAUX, JESSICA L	
			ART UNIT 3635	PAPER NUMBER
			MAIL DATE 12/13/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/693,541

Applicant(s)

MOODY ET AL.

Examiner

Jessica Laux

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-35 is/are pending in the application.
- 4a) Of the above claim(s) 23-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20, 22 and 33-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2006 and 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Acknowledgment is made of the RCE filed 10/15/2007. Accordingly the claims have been amended. A rejection is presented below in response to the claim amendments and remarks filed 07/20/2007.

#### ***Response to Arguments***

In response to applicant's arguments filed 07/20/2007:

Applicant's arguments, with respect to the rejection(s) of claim(s) 1-3, 5, and 17 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made and presented below.

Applicant's arguments, with respect to claims 18, 33 and depending have been fully considered but they are not persuasive.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Applicant merely states that Macomber fails to teach the claimed limitations without further explanation to support such a statement. Therefore this is not persuasive and examiner invites applicant to review the Office Action regarding these claims (the rejection is presented below, which clearly explains how the prior art anticipates the claimed limitations).

#### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-3, 5, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Frayne (5542227).**

Regarding claims 1, 17: Frayne discloses a metal truss, comprising: a pair of elongated top chord members (12) each having a first end and a second end, the top chord members connected to each other at the first end;

a first elongated bottom chord member (the top element 24 of beam 14), the ends of the first bottom chord member fixed directly to the top chord members adjacent the second ends of the top chord members (as seen in figures 1-2);

a second elongated bottom chord member (the bottom element 24 of beam 14), the ends of the second bottom chord member fixed directly to the top chord members adjacent the second ends of the top chord members such that the second bottom chord member is spaced from the first bottom chord member (as seen in figures 1-2); and

at least one web member (18, as seen in figure 2) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member (as seen in figure 2).

Regarding claim 2: A metal truss as recited in claim 1, wherein the ends of the second bottom chord member connect with the second ends of the top chord members at a point spaced from the second ends of the top chord members (as seen in figure 2).

Regarding claim 3: A metal truss as recited in claim 1, wherein the connected top chord members form an apex of an angular shape, and with the second bottom chord member, form a triangle (as seen in figure 2).

Regarding claim 5: A metal truss as recited in claim 1, further comprising at least one tensile element (22) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (where the web member connects the first chord member at the top of element 24 and the tensile element connects at the bottom of element 24 thereby being spaced by element 26; as seen in figure 11).

**Claims 18-20 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Macomber (2457056).**

Regarding claims 18, 33: Macomber discloses a metal truss, comprising:

a pair of elongated top chord members (12 & 13) each having a first end and a second end, the top chord members connected to each other at the first end;

a first elongated bottom chord member (10);

means for fastening (15) the first bottom chord member to the top chord members adjacent the second ends of the top chord members;

a second elongated bottom chord member (11); means for connecting (19) the second bottom chord member to the first bottom chord member such that the second bottom chord member is spaced from the first bottom chord member, the second bottom

chord member connecting means including at least one tensile element (19) connected between the first bottom chord member and the second bottom chord member; and

at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member,

wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (as seen in figures 3 and 4 where the tensile element is connected to the bottom of the lower flange of element 10 and the web member is connected to the top of the lower flange of element 10 thereby the two are spaced, vertically and horizontally as seen in figure 6, by the lower flange).

Regarding claim 19: A metal truss as recited in claim 18, wherein the first bottom chord member fastening means (15) includes fasteners (Col. 2, lines 54-55, whereby the fasteners are effected by welding and applicant has disclosed in the specification on page 8, line 14 that welding is appropriate form of fastening) for connecting the ends of the first bottom chord member directly to the top chord members.

Regarding claim 20: A metal truss as recited in claim 18, wherein the first bottom chord member fastening means includes a heel truss member (15) vertically fastened between each end of the first bottom chord member and the top chord members.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 7-8, 10, 12-13, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frayne (5542227) in view of Ruppel (2201504).**

Regarding claim 7: Frayne discloses a metal frame truss, each of the trusses comprising a pair of elongated top chord members (12) each having a first end and a second end, the top chord members connected to each other at the first end;

a first elongated bottom chord member (the top element 24 of element 14), the ends of the first bottom chord member fixed directly to the top chord members adjacent the second ends of the top chord members (as seen in figures 1-2);

a second elongated bottom chord member (the bottom element 24 of element 14), the ends of the second bottom chord member fixed directly to the top chord members adjacent the second ends of the top chord members such that the second bottom chord member is spaced from the first bottom chord member (as seen in figures 1-2); and

at least one web member (18) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member (as seen in figure 2),

Frayne does not teach a plurality of trusses and wall frames wherein the trusses are adapted to be erected upon a building system frame such that the second bottom chord member spans at least two wall frames and is connected to the top ends of the respective wall frames.

Ruppel teaches a plurality of wall frames (14), each of the wall frames having a top end; a plurality of metal trusses, each of the trusses wherein the plurality of trusses are erected upon the frame such that the second bottom chord member spans at least two of the wall frames and is connected to the top ends of the respective wall frames (Figure 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the truss as taught by Macomber have a plurality of the trusses be erected on wall frames as taught by Ruppel, as this is common in the art as a way to put a roof structure over a space enclosed by walls.

Regarding claim 8: A building system as recited in claim 7, wherein the ends of the second bottom chord member connect with the second ends of the top chord members at a point spaced from the second ends of the top chord members (as seen in Frayne figure 2).

Regarding claim 10: A building system as recited in claim 7, further comprising at least one tensile element (Frayne - 22) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (where the web



member connects the first chord member at the top of element 24 and the tensile element connects at the bottom of element 24 thereby being spaced by element 26; as seen in Frayne figure 11).

Regarding claim 12: Frayne discloses metal trusses, each of the truss comprising a pair of elongated top chord members (12) each having a first end and a second end, the top chord members connected to each other at the first end,

a first elongated bottom chord member (the top element 24 of element 14), the ends of the first bottom chord member fixed directly to the top chord members adjacent the second ends of the top chord members (as seen in figures 1-2),

a second elongated bottom chord member (the bottom element 24 of element 14), the ends of the second bottom chord member fixed directly to the top chord members adjacent the second ends of the top chord members such that the second bottom chord member is spaced from the first bottom chord member (as seen in figures 1-2), and

at least one web member (18) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member (as seen in figure 2),

Frayne does not teach a plurality of wall frames wherein the trusses are erected upon the wall frames and roofing material fastened to the top chord members.

Ruppel teaches a plurality of wall frames (14), each of the wall frames having a top end; a plurality of metal trusses, each of the trusses wherein the plurality of trusses

are erected upon the frame such that the second bottom chord member spans at least two of the wall frames and is connected to the top ends of the respective wall frames (Figure 3); and roof material fastened to the top chord members (Figure 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the truss as taught by Macomber to be erected on wall frames and to have roofing material fastened to the top chord members, as taught by Ruppel, as this would provide an enclosed roof system over a room to protect the interior of the walls from damage due to rain.

Regarding claim 13: A building system as recited in claim 12, wherein the ends of the second bottom chord member connect with the second ends of the top chord members at a point spaced from the second ends of the top chord members (as seen in Frayne figure 2).

Regarding claim 15: A building system as recited in claim 12, further comprising at least one tensile element (Frayne - 22) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (where the web member connects the first chord member at the top of element 24 and the tensile element connects at the bottom of element 24 thereby being spaced by element 26; as seen in Frayne figure 11).

**Claims 4, 9, 14, 34-35 rejected under 35 U.S.C. 103(a) as being unpatentable over Frayne (5542227) or Macomber (2457056).**

Regarding claims 4, 9, 14, 34-35: Frayne or Macomber discloses a truss made of metal as in the above claims. Neither expressly address the thickness, or gauge of the metal comprising the truss, however it appears that the truss of either Frayne or Macomber, or applicant's invention, would perform equally well with any thickness. Accordingly, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have modified Frayne or Macomber such that the thickness of the metal comprising the top and bottom chord members and the at least one web member to be less than about 1.2 mm, or 12-16 gauge, as they would both perform the same function of supporting a roof structure equally well. Therefore such a modification would have been considered a mere design consideration which fails to patentably distinguish over Frayne or Macomber.

**Claims 6, 11 and 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frayne (2457056), either alone or in view of Ruppel (2201504) as applied to the claims above, and further in view of Bertrand (4279112).**

Regarding claims 6, 11 and 16: Frayne either alone or in view of Ruppel discloses a metal truss as in claims above. Frayne, either alone or in view of Ruppel, does not disclose insulating material disposed between the first bottom chord member and the second bottom chord member at the point of connection of the at least one web member to the first bottom chord member. Bertrand discloses a method for improving thermic insulation of a building with a metal frame structure that includes using insulation to cover every metal framing member (Col. 4, lines 27-33 so that no exposed metal is present to act as a direct heat conductor (Col. 4, lines 48-52). Therefore, it

would have been obvious at the time the invention was made to modify Frayne to have insulation at the chord members because the insulation would prevent loss of heat because of the metal to metal contact at the connection of the chord members of the metal frame.

**Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Macomber (2201504) in view of Bertrand (4279112).**

Regarding claim 22: Macomber discloses a metal truss as in the claims above. Macomber does not disclose insulating material disposed between the first bottom chord member and the second bottom chord member at the point of connection of the at least one web member to the first bottom chord member. Bertrand discloses a method for improving thermic insulation of a building with a metal frame structure that includes using insulation to cover every metal framing member (Col. 4, lines 27-33 so that no exposed metal is present to act as a direct heat conductor (Col. 4, lines 48-52). Therefore, it would have been obvious at the time the invention was made to modify Macomber to have insulation at the chord members because the insulation would prevent loss of heat because of the metal to metal contact at the connection of the chord members of the metal frame.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Laux whose telephone number is 571-272-8228. The examiner can normally be reached on Monday thru Thursday, 9:00am to 5:00pm (est).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



/J. CHAPMAN/  
PRIMARY EXAMINER

JL  
12/03/2007